

Title (en)

Optical space switches using multiport couplers

Title (de)

Optische Raumkoppelfelder mit Mehrtor-Kopplern

Title (fr)

Commutateurs Spatiaux Optiques utilisant des coupleurs multi-ports

Publication

EP 1030533 A1 20000823 (EN)

Application

EP 00301037 A 20000209

Priority

US 25339899 A 19990219

Abstract (en)

The present invention provides NxN non-blocking switch modules using MMI-based switch elements. The arrangement requires a minimum of control elements to effect switching and uses no crossings of the signal waveguides. The switch control settings may be determined by following a simple and transparent algorithm for the set-up procedure. Very high-order switch fabrics comprising a variety of the taught non-blocking NxN switch modules are envisaged. Determination of the appropriate values for 'N' is a practical consideration which trades-off the performance of the individual switch modules with the complexity required of the associated module interconnection fabric. The spatial switch fabrics that may be built from the non-blocking MMI-based switch arrangements may be combined with both wavelength-division switches and time-division switches to form any combination of higher order space-wavelength-time switch. <IMAGE>

IPC 1-7

H04Q 11/00

IPC 8 full level

G02B 6/293 (2006.01); **H04B 10/2507** (2013.01); **H04B 10/27** (2013.01); **H04B 10/293** (2013.01); **H04Q 3/52** (2006.01); **H04Q 11/00** (2006.01)

CPC (source: EP US)

H04Q 11/0001 (2013.01 - EP US)

Citation (search report)

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DOCDB simple family (application)

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